Norton Air Force Base NPL/BRAC 1988

FFID: CA957002434500 **Size:** 2,179 acres

Mission: Supported C-141 airlift operations
HRS Score: 39.65; placed on NPL in July 1987

IAG Status: IAG signed in 1989

Contaminants: Waste oils and fuel, spent solvents, paints, refrigerants, heavy

metals, and VOCs

Media Affected: Groundwater and soil

Funding to Date: \$103.3 million

Estimated Cost to Completion (Completion Year): \$43.4 million (FY2012)
Final Remedy in Place or Response Complete Date for BRAC Sites: FY2002

Five-Year Review Status: Completed/Planned



San Bernardino, California

restoration at this installation has changed significantly because of estimating criteria issues.

Plan of Action

- Complete RA for Site 10 dioxin in FY01
- · Complete 5-year review as planned

Restoration Background

In December 1988, the BRAC Commission recommended closure of Norton Air Force Base. The installation closed in March 1994. The most significant sources of contamination at this installation are a trichloroethene (TCE)-contaminated groundwater plume and contaminated soil areas. Sites include underground storage tanks (USTs), landfills, fire training areas, spill areas, and waste disposal pits. A 5-year review was completed at the installation.

In FY82, remedial investigation and feasibility study (FS) activities began for 22 sites. In FY92, the central base area (CBA) groundwater extraction and treatment system began operating to treat the highest concentration TCE plume area.

In FY94, a Record of Decision (ROD) was signed for the CBA operable unit (OU), identifying the remedial action (RA) for TCE in soil and groundwater. In FY95, the CBA groundwater extraction and treatment system was expanded and the base boundary groundwater extraction and treatment system began operation. A soil vapor extraction system was constructed to remove TCE from soil at the source of the groundwater plume. The installation also formed a Restoration Advisory Board and a BRAC Cleanup Team (BCT). The BCT redefined OUs and initiated interim actions to shorten cleanup time.

During FY96, No Further Remedial Action Planned documents were completed for Sites 3, 4, 7, 11, 15, and 18. Closure reports were completed for Sites 6 and 9. An action memorandum (AM) concluded that no further action was necessary at Site 22. The Air Force identified 73 areas of concern that required investigations, all of which were completed. Soil removal was completed at 23 UST sites, and the removed soil was treated in bioremediation cells. Closure of the Defense Reutilization and Marketing Office

occurred. Fieldwork for the industrial waste treatment plant closure was completed, and a closure report was submitted.

In FY97, remediation of the TCE source area was completed. A ROD was signed for Site 19. The installation also completed the Air Combat Camera Services closure report. RA was completed for Sites 1, 8, 13, and 14 through excavation and disposal. The installation also completed RAs for Sites 16 and 21. An AM concluded that no further action was necessary at Sites 10 and 12.

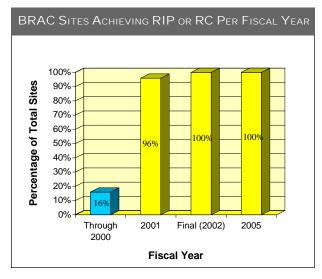
In FY98, the RA at Site 5 was completed. The landfill cap at Site 2 was designed, and construction began. An AM was completed for Site 17. The ecological risk assessment also was completed.

In FY99, the RA was completed at Site 2 and remedial action—operations for landfill gas collection and destruction began. The closure report for Site 5 was completed. The basewide FS was completed, and the proposed plan was prepared. The California Department of Toxic Substances Control recommended placement of land use covenants on some sites and informally disputed the basewide FS.

FY00 Restoration Progress

Removal of radium paint residue at Building 752 was completed. Work continued on the installation's basewide OU ROD for TCE in groundwater. Operations and maintenance (O&M) of the landfill gas removal and destruction system continued, and O&M of the base boundary extraction and treatment system continued to remove TCE from groundwater and soil. Efforts to close the former industrial waste line continue.

The basewide OU ROD was delayed due to a dispute over institutional controls and the characterization of dioxin at Site 10. The estimated cost of completing environmental



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